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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
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09/160,728 09/25/98 LEWAK

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EXAMINER

SEALEY, L

ART UNIT

PAPER NUMBER

2671

DATE MAILED:

05/21/01

Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents and Trademarks

SW

Office Action Summary

Application No.

09/160,728

Applicant(s)

LEWAK, JERZY

Examiner

Lance W. Sealey

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).

Status

- 1) ☒ Responsive to communication(s) filed on 27 March 2001.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☐ Claim(s) 21-40 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 21-40 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claims _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are objected to by the Examiner.
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).
- a) ☐ All b) ☐ Some * c) ☐ None of the CERTIFIED copies of the priority documents have been:
1. ☐ received.
2. ☐ received in Application No. (Series Code / Serial Number) _____.
3. ☐ received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. & 119(e).

Attachment(s)

- 15) ☒ Notice of References Cited (PTO-892)
- 16) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 17) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____
- 18) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 19) ☐ Notice of Informal Patent Application (PTO-152)
- 20) ☐ Other: _____

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DETAILED ACTION

Notice of Change in Art Unit

1. The Group and/or Art Unit location of your application in the USPTO has changed. To aid in correlating any papers for this application, all further correspondence regarding this application should be directed to Group Art Unit 2671.

Claim Objections - 35 USC § 112

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claims 21-40 are rejected under the second paragraph of 35 U.S.C. 112. Claim 21 recites "A method *and means* of animating..." (italics added by examiner). Such a claim is indefinite; the examiner must be able to identify claims by their type, such as "apparatus" claims (MPEP 2114), "process for use" claims (MPEP 806.05(e), 806.05(f)), "process for making a product" claims (MPEP 806.05(e), 806.05(f)), "product made" claims (MPEP 2173.05(p)), or "composition" claims (MPEP 2173.05(t)).

4. Such claim language as "a method and means" combines a "process for making a product" claim (suggested by the word "method") with an "apparatus" claim (suggested by the word "means"), and is therefore improper. The examiner suggests that the applicant write an independent claim, with its corresponding dependent claims, that describes the method of creating animation, and another independent claim, with its corresponding dependent claims, that describes the apparatus through which the animation is generated.

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Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

- (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 21-23, 26-27, 31-33 and 36-37 are rejected under 35 U.S.C. 103(a) as being unpatentable by Nakayama et al. ("Nakayama," U.S. Pat. No. 5,732,001) in view of Foley et al, Computer Graphics: Principles and Practice, Second Edition in C ("Foley").

7. With respect to claims 21, 31, 33 and 36-37, Nakayama, in disclosing a calculator with stepwise display of linear equations, also discloses a method of presenting, on a computer controlled display device, transformation rules of abstract representations using animations to simulate continuous transformations, where said presentation is for use in the teaching of said presentation rules (Abstract, first sentence).

8. However, the Nakayama inventors did not disclose a presentation comprising a plurality of intermediate presentations displayed in rapid succession as is customary in the art of animations; this is taught by Foley in Section 21.1.1, Conventional Animation and 21.1.2, Computer Assistance (in animation), pp. 1058-1060.

9. Therefore, it would have been obvious to a person with ordinary skill in the art at the time

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this invention was made to implement the computer animation method described in Foley in the Nakayama calculator. The animation method is essential in producing a more coherent presentation (Foley, p.1059, first full paragraph, next-to-the-last sentence).

10. The other claims in this rejection will now be addressed. Concerning claim 22, Nakayama also discloses a presentation on a computer-controlled display device in 2, FIG.1.
11. Regarding claim 23, Nakayama discloses calculating immediate abstract representations between a starting and an ending representation (Abstract, first sentence).
12. Concerning claims 26, Nakayama discloses means for accepting and responding to user input (col.9, ll.15-16).
13. With respect to claim 27, Nakayama discloses means for changing said display in response to said user input (col.9, ll.10-14).
14. Therefore, in view of the foregoing, it is concluded that claims 21-23, 26-27, 31-33 and 36-37 have been rendered unpatentable by Nakayama in view of Foley.
15. Claims 24 and 34 are rejected under 35 U.S.C. 103(a) as being unpatentable by Nakayama in view of Foley and further in view of Weinreich (U.S. Pat. No. 5,535,421).
16. With respect to claim 24, Nakayama further discloses a means for (a) moving of a symbol or symbols along a prescribed path (col.9, ll.23-27); (b) changing of set symbol or symbols to other symbol or symbols (left shift key 3h, FIG.1); and (d) and (e) causing said symbol or symbols to fade in and out (when the screen changes to display a new equation, symbols fade out so that new symbols can fade in). However, the Nakayama inventors did not disclose a means for the

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splitting of said symbol or symbols into multiple copies; this is taught by Weinreich's chord keyboard system at col.12, ll.5-24).

17. Therefore, it would have been obvious to a person with ordinary skill in the art at the time this invention was made to give the Nakayama keys the ability to repeat symbols. This makes it easier for the user to type a long line of repeated characters (Weinreich, col.12, ll.7-13).

18. At this point there is one more claim to be considered in this rejection: Claim 34 is rejected with the same rationale used to reject claim 21.

19. In view of the foregoing, it is concluded that claims 24 and 34 have been rendered unpatentable by Nakayama in view of Foley and further in view of Weinreich.

20. Claims 25, 28-30, 35 and 38-40 are rejected under 35 U.S.C. 103(a) as being unpatentable by Nakayama in view of Foley and further in view of Tseng (British Pat. No. 2 127 200 A).

21. Nakayama does not disclose a means for manipulating an animated picture and projecting a voice accompaniment to what is displayed. These elements are disclosed by Tseng.

22. With respect to applicant's claim 25, Tseng, which discloses a music and arithmetic teaching machine, also discloses a means for displaying an animated picture and sequencing the animations of the picture with said animations of said representations (Abstract, third sentence).

23. Therefore, it would have been obvious to a person with ordinary skill in the art at the time this invention was made to substitute the Nakayama RAM 13 (FIG.2) for the Tseng RAM 13 (FIG.1) and incorporate the program running in the Nakayama CPU 10 (FIG.2) in the Tseng CPU 11 (FIG.1) in order to fulfill applicant's claims. Such a combination would jointly and clearly

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express numerical concepts to raise a user's learning interest and learning effect (Tseng, Abstract, third sentence).

24. At this time the other claims to be rejected will be considered: With respect to claim 28, Tseng further comprises computer controlled voice explanations of said animations, and means of synchronizing said voice with said animations (Abstract, third sentence).

25. Concerning claim 29, Tseng additionally comprises (a) means for converting text to speech, and (b) a method of using a text script to control the synchronization of the voice with the animations (Abstract, third sentence).

26. Regarding claim 30, Tseng additionally comprises means for evaluating, in real time, the context dependent content in said voice explanations (13, FIG.7). Claims 38-40 are rejected with the same rationale used to reject claim 21.

27. Therefore, in view of the foregoing, it is concluded that claims 25, 28-30, 35 and 38-40 are rendered unpatentable by Nakayama in view of Foley and further in view of Tseng.

Response to Remarks

28. The Foley reference has been added to the rejection of the claims in order to address the added specificity the applicant used to describe the animation provided in his invention.

Action is Final, Necessitated by Amendment

29. Applicants' amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP 706.07(a).


Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

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30. A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Conclusion

31. Any inquiry concerning this communication should be directed to Lance W. Sealey at (703) 305-0026.


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